

Amendments to the Specification

Please replace the paragraph beginning at page 19, line 25, with the following amended paragraph:

The partially purified enzyme preparation having α -isomaltosyl glucosaccharide-forming activity, thus obtained, was dialyzed against 10 mM sodium phosphate buffer (pH 7.0) with 1 M ammonium sulfate. The dialyzed solution was centrifuged to remove impurities, and subjected to an affinity column chromatography using 500 ml of "SEPHACRYL HR S-200", a gel commercialized by Amersham Biosciences K. K., Tokyo, Japan. The enzyme was adsorbed on "SEPHACRYL HR S-200" gel and, when eluted with a linear gradient decreasing from 1 M to 0 M of ammonium sulfate, the enzymatic activity was eluted with a linear gradient of ammonium sulfate at about 0.2 M, and fractions with the enzyme activity was collected as purified enzyme preparation. The amount of enzyme activity, specific activity and yield of the α -isomaltosyl glucosaccharide-forming enzyme in each purification step are in Table 14.

Table 1

Enzyme	Amount of Enzyme (units/g-sub.)	Content (%)		
		AA-2G	AA-5G	AA-6G
<i>IMG*</i> from <i>Arthrobacter</i> sp.	5	22.5	0.0	0.0
	10	24.0	0.0	0.0
	20	24.3	0.0	0.0
CGTase** (Control)	300	25.5	0.8	0.3

* IMG; α -isomaltosyl glucosaccharide-forming enzyme

**CGTase; cyclomaltodextrin glucanotransferase

Please replace the paragraph beginning on page 23, line 3, with the following amended paragraph:

A test for investigating whether the following each saccharide can be used or not as a glucosyl donor for transferring glucosyl residue to L-ascorbic acid by α -isomaltosyl glucosaccharide-forming enzyme was carried out. A solution containing glucose, maltose, maltotriose, maltotetraose, maltopentaose, maltohexaose, maltoheptaose, isomaltose, isomaltotriose, isopanose, trehalose, kojibiose, nigerose, neotrehalose, cellobiose, gentiobiose, maltitol, maltotriitol, lactose, sucrose, erlose, selaginose, maltosylglucoside, isomaltosylglucoside, α -cyclodextrin, β -cyclodextrin, γ -cyclodextrin, amylose, amylopectin, glycogen, pullulan, or dextran was prepared. To each solution, L-ascorbic acid was further added and the concentrations of the saccharide and L-ascorbic acid were adjusted to 2% (w/v). To each substrate solution, purified α -isomaltosyl glucosaccharide-forming enzyme preparation, obtained by the method in Experiment 2, was added to give 3 units/g-substrate of the amount of enzyme, and the concentration of the substrate was adjusted to 1.6% (w/v), and followed the enzyme reaction at 40°C, pH 6.0 for 20 hours. The formation of AA-2G in the reaction mixture was detected by thin-layer chromatography (abbreviated as "TLC", hereinafter) using a silica gel plate. A mixture of n-butanol, pyridine, and water (volume ratio of 6:4:1) was used as a solvent for the development. After developing samples once on "KIESELGEL 60F₂₅₄", silica gel-aluminum plate (20 x 20 cm) commercialized by Merck Ltd. Japan, Tokyo, Japan, AA-2G and L-ascorbic acid were detected by irradiating ultraviolet-ray. From the results of TLC analysis, the formation of AA-2G was evaluated. The results are in Table 25.

Table 2

IMG* (units/g-sub.)	GGTase** (units/g-sub.)	Content (%)		
		AA-2G	AA-5G	AA-6G
10	0	25.1	0.0	0.0
10	1	29.3	0.0	0.0
10	2	30.1	0.0	0.0
10	5	30.8	0.1	0.0
10	10	30.9	0.1	0.0
10	100	30.6	0.8	0.3
0	1	4.3	0.0	0.0
0	2	5.4	0.0	0.0
0	5	7.8	0.2	0.0
0	10	10.4	0.3	0.1
0	100	29.5	0.9	0.3

*IMG; α -isomaltosyl glucosaccharide-forming enzyme

**GGTase; cyclomaltodextrin glucanotransferase

Please replace the paragraph beginning at page 24, line 5, with the following amended paragraph:

As is evident from the results in Table 25, it was revealed that α -isomaltosyl glucosaccharide-forming enzyme formed AA-2G by using saccharides, having a maltose structure at their non-reducing end and the glucose polymerization degree of three or higher as glucosyl donors and transferring a glucosyl residue to L-ascorbic acid. Further, it was also revealed that α -isomaltosyl glucosaccharide-forming enzyme formed AA-2G by using saccharides, having a glucose polymerization degree of two such as maltose, kojibiose, nigerose, neotrehalose, maltotriitol, erlose as glucosyl donors.